

Guidelines For Estimating

Swine (23 to 113 kg) Finishing Costs

Based On Marketing 11,527 Pigs Sold

Date: March, 2007

This publication is intended to provide a format and a set of guidelines for determining the cost of production for a finishing 23 - 113 kg enterprise. This type of operation is intended to represent the third stage of a three stage pork system. The three production stages are as follows: first stage - farrow to 5 kg, second stage - weaner pig (nursery) 5 to 23 kg, third stage - grower/finisher 23 kg to market weight. Adjustments will be necessary when applying these figures to your enterprise.

The assumptions on which the costs are based are outlined in the supporting pages. These assumptions were arrived at using the breeding stock, management practices, and facilities seen in modern, well managed swine operations of comparable size in Manitoba. Productivity and performance assumptions are based on information collected by department specialists, feed companies and other organizations. Where individual herd productivity and performance levels differ from those listed adjustments will be required.

The guideline can be useful for comparison purposes. Comparison of costs at different levels of production can be made with other farms, the farm over a period of time or comparing the plan with the actual results at the end of the planning period.

Disclaimer: This budget is only a guide and is not intended as an in depth study of the cost of production of this industry. Interpretation and utilization of this information is the responsibility of the user. If you require assistance with developing your individual budget, please contact your local MAFRI office.



Swine (23 - 113 kg) Finishing Cost of Production

The following 23-113 kg budget is based on the assumption **that all feed rations are purchased**. The budget also include a land investment cost based on the assumption that 160 acres would be required for this size operation, with 140 acres rented out at \$25 per acre.

The budget includes an assumption that 1.5% of the market pigs are sold as lightweight pigs. It is assumed that when light weight pigs are sold, they will have a salvage value. Therefore, total marketings are reduced by 1% to compensate for the lightweight pigs.

The budget includes an assumption that this particular operation is "all-in, all-out" by room. Space allocations for finishing pigs are in accordance with Recommended Code of Practice for the Care and Handling of Farm Animals: Pigs.

The rations illustrated in this budget are examples only. Individual farm conditions should be taken into account when formulating the diets. Producers need to know the feed intakes of their animals. Please consult with a nutritionist for diet information suggestions.

The Manitoba pork production industry profile is changing and this budget was specifically designed to address the need of producers who may want to analyze the cost of starting up or switching to a finishing 23-113 kg operation. Several companies are offering contracts with varying levels of guarantees. Producers need to accurately calculate their costs before they can properly make a decision.

Swine (23-113 kg) Finishing Summary March, 2007

A. Operating Costs	\$/Pig Sold	Total Cost	Your Cost
1. Feed Costs:	2010	0001	0031
1.01 Grower 1	\$19.51	\$224,883	
1.02 Grower 2	\$22.10	\$254,737	
1.03 Finisher	\$25.62	\$295,311	
Total Feed Cost	\$67.23	\$774,931	
2. Other Operating Costs:			
2.01 Weanling Cost	\$53.09	\$611,946	
2.02 Veterinary Medicine & Supplies	\$1.65	\$19,000	
2.03 Maintenance & Repairs	\$1.11	\$12,789	
2.04 Hydro & Propane	\$2.34	\$27,000	
2.05 Insurance	\$1.30	\$14,969	
2.06 Manure Costs	\$2.35	\$27,107	
2.07 Office Supplies	\$0.10	\$1,146	
2.08 Marketing & Transport	\$8.37	\$96,477	
2.09 Property Tax	\$0.61	\$7,000	
Subtotal Operating Costs	\$138.15	\$1,592,365	
2.10 Interest on Operating Costs	\$1.85	\$21,379	
Total Operating Costs	\$140.00	\$1,613,744	
B. Fixed Costs			
3. Depreciation:			
3.01 Buildings & Manure Storage	\$2.82	\$32,502	
3.02 Equipment	\$3.92	\$45,174	
Total Depreciation Cost	\$6.74	\$77,676	
4. Investment:			
4.01 Land	\$0.14	\$1,600	
4.02 Buildings & Manure Storage	\$1.36	\$15,623	
4.03 Equipment	\$0.97	\$11,154	
Total Investment Cost	\$2.46	\$26,777	-
Total Fixed Costs	\$9.20	\$104,453	
C. Labour			
Wages, benefits and hired manager	\$4.17	\$48,048	
Total Cost of Production	\$153.37	\$1,766,245	
Break Even Brice (correcce)	\$/100 kg	\$/cwt	
Break-Even Price (carcass) 1	\$/100 kg		
Operating Cost	\$142.21	\$64.51	
Operating & Labour Cost	\$146.45	\$66.43 \$70.67	
Operating, Labour & Fixed Cost Break-even Price = Cost per Hog Sold + (Slaught	\$155.79	\$70.67	no V Indov

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Swine (23-113 kg) Finishing Production Cost Assumptions

- 1. This input table outlines the cost of production for a finishing enterprise
- 2. Buildings and equipment are valued at new cost.
- 3. Purchased feed is used.
- 4. Manure haulage is contracted out.
- 5. Livestock values are based on a market price for pork of:

	\$145.00	/100 kg	110	Market Index
or:	\$0.66	/lb	80	% Dress
Premiur	n/head	\$2.00		

Indicators	of	Productivity
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•	Grower 1	Grower 2	Finisher	Total
Number of Pigs Purchased	12,000	11,880	11,761	12,000
Average Beginning Weight (kg)	23.0	50.0	80.0	23
Average Ending Weight (kg)	50.0	80.0	113.0	113
Percent Mortality	1.00	1.00	1.00	3.00
Days on Feed	36	34	41	111
Feed Conversion Ratio	2.60	2.90	3.30	2.96
Number of Pigs (Ending)	11,880	11,761	11,643	11,643
Weight Gain/Pig (kg)	27.0	30.0	33.0	90.0
Feed Disappearance/Pig (kg)	70.2	87.0	108.9	266.1
Average Daily Gain (kg)	0.750	0.900	0.820	0.811
Average Number Pigs in Barn	3,860	3,821	3,783	3,822

Total

Productivity	Profile		
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Pigs Purchased	12,000		
Pigs Died	360	3.0	% mortality
Pigs available for marketing	11,643		
Less Light Weight Pig Adjustment	116	1.00	%
Pigs Sold at full market value	11,527		
Washing and restocking days	7		
Total Days to Market	118		
Turnover (365 / days to market)	3.09		

Feed Requirements and Costs

			Ration Cost			
	FCR *	kg/pig	Purchased	Home	e-Mixed	
Grower 1	2.60	70.2	\$267.00	\$0.00	/tonne	
Grower 2	2.90	87.0	\$244.00	\$0.00	/tonne	
Finish Ration	3.30	108.9	\$226.00	\$0.00	/tonne	
* FCR = Feed Conversion I	Ratio (Feed:Gain)					

Labour

Total Hours per year	66.0	hours/week	3,432	hours/year
Wage (includes hired manager)	\$14.00	/hour (weighted)		

Capital Investment¹

4,000 Pig Places

			/sq.ft	Total	/Pig Flace	Your Cos
Buildings						
Barn	36,800	ft.2	\$17.00	\$625,600	\$156.40	
Office & Loading	200	ft.2	\$30.00	\$6,000	\$1.50	
Standby Generator				\$24,000	\$6.00	-
Feed Mill (building only	y)			\$0	\$0.00	
Total Building Cost				\$655,600	\$163.90	
Equipment						
Finishing Barn				\$470,000	\$117.50	
Other				\$0	\$0.00	
Fire Alarm System				\$1,000	\$0.25	
Storage Bins				\$36,000	\$9.00	
Feed Mill (equipment of	only)			\$0	\$0.00	
Total Equipment Cos	t			\$507,000	\$126.75	
Total Buildings and Equ	ipment Co	st		\$1,162,600	\$290.65	
Land Value						
Land Investment 20	acres @		\$500	\$10,000	\$2.50	
Other Costs						
Site preparation				\$30,000	\$7.50	
Manure Storage				\$60,000	\$15.00	
Total Other Costs				\$90,000	\$22.50	
Total Capital Investment	1			\$1,253,100	\$313.28	

¹ FOOTNOTE: The number of square feet in the building and the cost per square foot for buildings and equipment are approximations only. A certified building plan which is designed according to the average inventory of grower-finisher pigs should be used in order to get the exact dimensions and area for new buildings.

NOTE: 1 sq.ft. = 0.0929 sq.m; 1 sq.m.= 10.764 sq.ft.; 1 ft.= 0.3048 m

Feed Ingredient Costs

	Price/tonne	Your Cost
Wheat	\$170	
Barley	\$160	
Corn	\$170	
Soybean Meal - 47 %	\$280	
Canola Meal - 34 %	\$175	
Peas	\$210	
Creep Premix	\$1,200	
Sow Micro Premix	\$3,000	
Grower Micro Premix	\$2,500	
Canola Oil	\$900	
Whey Powder	\$800	
Herring Meal	\$1,500	
Plasma	\$7,500	
Limestone	\$80	
Dical (16% Ca-21% P)	\$455	
Salt - 96%	\$125	
Phytase	\$10,000	
L-Lysine HCL	\$2,200	
L-Threonine	\$2,600	
DL-Methionine	\$3,600	
Oats - Steam Rolled	\$400	
Processing Cost		
(Hydro, Repairs/Maintenance & Insurance)	\$3.25	
Percent Weight loss due to processing	1.25 %	
Labour Cost	\$4.00	

Ration Formulas	Grower 1 Ration	Grower 2 Ration	Finisher Ration
	(kg)	(kg)	(kg)
Wheat	532.56	372.39	220.04
Barley	183.30	268.60	408.35
Corn	0.00	0.00	0.00
Soybean Meal - 47 %	158.80	45.37	0.00
Canola Meal - 34 %	0.00	84.39	79.40
Peas	100.00	204.07	272.13
Creep Premix	0.00	0.00	0.00
Sow Micro Premix	0.00	0.00	0.00
Grower Micro Premix	3.00	3.00	3.00
Canola Oil	0.00	0.00	0.00
Whey Powder	0.00	0.00	0.00
Herring Meal	0.00	0.00	0.00
Plasma	0.00	0.00	0.00
Limestone	12.21	11.71	10.38
Dical (16% Ca-21% P)	4.85	5.38	2.84
Salt - 96%	3.50	3.50	3.50
Phytase	0.20	0.20	0.20
L-Lysine HCL	1.36	1.36	0.00
L-Threonine	0.09	0.00	0.02
DL-Methionine	0.13	0.03	0.14
Oats - Steam Rolled	0.00	0.00	0.00
Total	1,000.00	1,000.00	1,000.00

Feed Requirement and Cost Summary

		Ingredient	Ration	
	Amount	Price	Cost	
Grower 1	(kg)	(\$ /tonne)	(\$ /tonne)	Your Cost
Wheat	532.56	\$170.00	\$90.54	
Barley	183.30	\$160.00	\$29.33	7
Soybean Meal - 47 %	158.80	\$280.00	\$44.46	
Peas	100.00	\$210.00	\$21.00	
Grower Micro Premix	3.00	\$2,500.00	\$7.50	
Limestone	12.21	\$80.00	\$0.98	
Dical (16% Ca-21% P)	4.85	\$455.00	\$2.21	
Salt - 96%	3.50	\$125.00	\$0.44	
Phytase	0.20	\$10,000.00	\$2.00	
L-Lysine HCL	1.36	\$2,200.00	\$2.99	
L-Threonine	0.09	\$2,600.00	\$0.23	
DL-Methionine	0.13	\$3,600.00	\$0.47	
Total	1,000.00 kg		\$202.15	
Adjusted For Weight Loss		1.25	% \$204.68	
Plus Processing Cost		\$3.25	\$207.93	
Plus Labour Cost		\$4.00	\$211.93	
Grower 2				
Wheat	372.39	\$170.00	\$63.31	
Barley	268.60	\$160.00	\$42.98	
Soybean Meal - 47 %	45.37	\$280.00	\$12.70	
Canola Meal - 34 %	84.39	\$175.00	\$14.77	-
Peas	204.07	\$210.00	\$42.85	
Grower Micro Premix	3.00	\$2,500.00	\$7.50	
Limestone	11.71	\$80.00	\$0.94	
Dical (16% Ca-21% P)	5.38	\$455.00	\$2.45	-
Salt - 96%	3.50	\$125.00	\$0.44	-
Phytase	0.20	\$10,000.00	\$2.00	
L-Lysine HCL	1.36	\$2,200.00	\$2.99	-
DL-Methionine	0.03	\$3,600.00	\$0.11	
Total	1,000.00 kg		\$193.04	•
Adjusted For Weight Loss		1.25		
Plus Processing Cost		\$3.25	\$198.70	
Plus Labour Cost		\$4.00	\$202.70	

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Wheat	220.04		\$170.00		\$37.41	
Barley	408.35		\$160.00		\$65.34	
Canola Meal - 34 %	79.40		\$175.00		\$13.90	
Peas	272.13		\$210.00		\$57.15	
Grower Micro Premix	3.00		\$2,500.00		\$7.50	
Limestone	10.38		\$80.00		\$0.83	
Dical (16% Ca-21% P)	2.84		\$455.00		\$1.29	
Salt - 96%	3.50		\$125.00		\$0.44	
Phytase	0.20		\$10,000.00		\$2.00	
L-Threonine	0.02		\$2,600.00		\$0.05	
DL-Methionine	0.14		\$3,600.00		\$0.50	
Total	1,000.00	kg			\$186.41	
Adjusted For Weight Loss			1.25	%	\$188.74	
Plus Processing Cost			\$3.25		\$191.99	
Plus Labour Cost			\$4.00		\$195.99	

Swine Finishing Production Cost Worksheet

perating Co	sts		Your Cost
ed Requirer	nents and Costs		
1.01 Growe	er 1		
	27.0	kg weight gain/pig	
×	2.6	feed conversion ratio	
=	70.2	kg ration/pig	
x	\$267.00	/tonne ration	
+	1,000	kg/tonne	
×	12,000	weanlings purchased	4
+	11,527	pigs sold	
=	\$19.51	/pig sold	
1.02 Growe	er 2		
	30.0	kg weight gain/pig	
×	2.9	feed conversion ratio	
=	87.0	kg ration/pig	
x	\$244.00	/tonne ration	
+	1,000	kg/tonne	
×	12,000	weanlings purchased	
+	11,527	pigs sold	
=	\$22.10	/pig sold	
1.03 Finish	er Ration		
	33.0	kg weight gain/pig	
×	3.3	feed conversion ratio	
=	108.9	kg ration/pig	
×	\$226.00	/tonne ration	-
			-
4	1.000	ka/tonne	
+ X	1,000 12,000	kg/tonne weanlings phased	
	12,000	weanlings puchased	
×			
× + =	12,000 11,527 \$25.62	weanlings p_ chased pigs sold	
x + = ther Operation	12,000 11,527 \$25.62	weanlings p_ chased pigs sold	
x + = ther Operation	12,000 11,527 \$25.62	weanlings puchased pigs sold /pig sold	
x + = ther Operation	12,000 11,527 \$25.62 ng Costs	weanlings p_ chased pigs sold	
x + = ther Operation 2.01 Weam	12,000 11,527 \$25.62 ng Costs \$60.00	weanlings purhased pigs sold /pig sold market price	
x + = ther Operation 2.01 Weam	12,000 11,527 \$25.62 ng Costs \$60.00 100	weanlings purhased pigs sold /pig sold market price lbs/cwt	
x + = ther Operation 2.01 Weam	12,000 11,527 \$25.62 ng Costs \$60.00 100 50 1.7	weanlings purhased pigs sold /pig sold /pig sold market price lbs/cwt lbs formula factor	
ther Operation 2.01 Weam + X X	12,000 11,527 \$25.62 ng Costs \$60.00 100 50	weanlings purhased pigs sold /pig sold market price lbs/cwt lbs	

2.02 Veteri	inary Cost		
	\$1,000.00	professional services	
+	\$18,000.00	medication	
+	11,527	pigs sold	
=	\$1.65	/pig sold	
2.03 Maint	enance & Repair	rs	
	1.10	% of total capital investment	
×	\$1,162,600	total buildings and equipment cost	
+	11,527	pigs sold	
=	\$1.11	/pig sold	
2.04 Utilities	5		
	\$22,000	hydro	
+	\$5,000	propane	
+	11,527	pigs sold	
=	\$2.34	/pig sold	
2.05 Insura	ance		
	\$1,162,600	buildings & equipment	
x	\$0.78	/\$100	
+	100	/\$100 capital	
4	11,527	pigs sold	
=	\$0.79	/pig sold	
	3.822	average number pigs in barn	
×	\$140.00	average value	
×	\$0.88	/\$100	
4	100	/\$100 capital	
+	11,527	pigs sold	
=	\$0.41	/pig sold	
	\$40.00	insured value	
x	3,822	average number in barn	
×	\$0.78	rate /\$100	
+	11,527	pigs sold	
=	\$0.10	/pig sold	
=	\$1.30	/pig sold	
2.06 Manu	re Costs		
Haulage	7.1	litres/pig/day	
×	365	days/year	
×	3,822	average inventory of pigs	
×	\$0.002	/litre	
+	11,527	pigs sold	
	\$1.72	/pig sold	

365 <u>6.0</u> \$0.82	days/year
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B. Fixed Costs

3. Depreciation

Original cost - Salvage Value Useful Life

3.01 Building	15		
	\$715,600	total building cost (including earthen manure storage)	
œ	\$65,560	salvage value (building only)	
4	20	years useful life	
4	11,527	pigs sold	
=	2.82	/pig sold	
3.02 Equipme	ent		
	\$507,000	total equipment cost	
	\$50,700	salvage value	
+	10	years useful life	
+	11,527	pigs sold	
=	3.92	/pig sold	

4. Investment Cost

(Original Cost + Salvage Value) X Investment Rate 2

4.01 Land		
	\$10,000	land investment
+	\$30,000	site preparation
×	4.0	% investment rate
4	11,527	pigs sold
=	0.14	/pig sold
4.02 Buildings		
	\$715,600	total building cost (including earthen manure storage)
4	\$65,560	salvage value (building only)
4	2	average
×	4.0	% investment rate
4	11,527	pigs sold
=	1.36	/pig sold

4.03	Egui	pment

4.00	-darbinour			
		\$507,000	total equipment cost	
	+	\$50,700	salvage value	
	+	2	average	
	x	4.0	% investment rate	
	+	11,527	pigs sold	
	=	0.97	/pig sold	
5. Labou	r Cost			
		3432	total hours/year	
	x	\$14.00	/hour	
	+	11,527	pigs sold	
	=	4.17	/pig sold	

Summary of Purchased Feeds Used 11,643 Pigs available for marketing (includes lightweights)

	Total per Pig Mkt	Total per Year	Total per Month	Total per Pig Mkt
	(kgs)	(tonnes)	(tonnes)	(lbs)
Grower 1	70.20	817.34	68.11	154.76
Grower 2	87.00	1,012.94	84.41	191.80
Finish Ration	108.90	1,267.92	105.66	240.08
Total	266.10	3,098.20	258.18	586.64

Summary of Home Mixed Feed Ingredients Used

	Total	Total	Total	Total
	per Pig	per Year	per Month	per Pig
	(kgs)	(tonnes)	(tonnes)	(lbs)
Wheat	0.00	0.00	0.00	0.00
Barley	0.00	0.00	0.00	0.00
Corn	0.00	0.00	0.00	0.00
Soybean Meal - 47 %	0.00	0.00	0.00	0.00
Canola Meal - 34 %	0.00	0.00	0.00	0.00
Peas	0.00	0.00	0.00	0.00
Creep Premix	0.00	0.00	0.00	0.00
Sow Micro Premix	0.00	0.00	0.00	0.00
Grower Micro Premix	0.00	0.00	0.00	0.00
Canola Oil	0.00	0.00	0.00	0.00
Whey Powder	0.00	0.00	0.00	0.00
Herring Meal	0.00	0.00	0.00	0.00
Plasma	0.00	0.00	0.00	0.00
Limestone	0.00	0.00	0.00	0.00
Dical (16% Ca-21% P)	0.00	0.00	0.00	0.00
Salt - 96%	0.00	0.00	0.00	0.00
Phytase	0.00	0.00	0.00	0.00
L-Lysine HCL	0.00	0.00	0.00	0.00
L-Threonine	0.00	0.00	0.00	0.00
DL-Methionine	0.00	0.00	0.00	0.00
Oats - Steam Rolled	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00
Total	266.10	3,098.20	258.18	586.64

For further information contact your local MAFRI office.

Prepared by:

Peter Blawat

Ian Seddon

Policy Analyst

Business Development Specialist - Swine

Prepared by Manitoba Agriculture, Food and Rural Initiatives.

Growing Opportunities.